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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
10/590,139	02/11/2008	Neil Duggal	HO-P03203US0	5647				
44270 IMDS, INC. 124 SOUTH 600 WEST LOGAN, UT 84321	7590 09/07/2010		<table border="1"><tr><td>EXAMINER</td></tr><tr><td>SNOW, BRUCE EDWARD</td></tr></table>		EXAMINER	SNOW, BRUCE EDWARD		
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			<table border="1"><tr><td>NOTIFICATION DATE</td><td>DELIVERY MODE</td></tr><tr><td>09/07/2010</td><td>ELECTRONIC</td></tr></table>	NOTIFICATION DATE	DELIVERY MODE	09/07/2010	ELECTRONIC	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

khansen@imds.net

### Office Action Summary

**Application No.**

10/590,139

**Applicant(s)**

DUGGAL ET AL.

**Examiner**

Bruce E. Snow

**Art Unit**

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 32-39, 41, 43-56, 58-61 and 63-67 is/are pending in the application.
- 4a) Of the above claim(s) 56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32-39, 41, 43-55, 58-61, 63-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

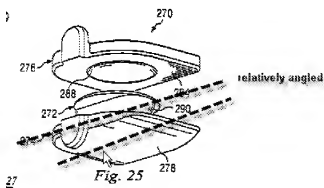
## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 6/14/10 have been fully considered. Applicant's priority date for the elected embodiment of June 30, 2005 is noted. Regarding the claim limitation "orientation feature", this is not supported in the specification and lacks antecedent basis.

Applicant's amendments overcame the rejection under 35 U.S.C. 102(a, e) as anticipated Beaurain et al (2004/0243240).

Regarding the rejection under 35 U.S.C. 102(a, e) as anticipated by Marik et al (2005/0216086), applicant has amended the claims and argues that the articulating structure/nucleus has a "sloping partial cylinder" or "straight section sloping". It is the examiner's position that this fails to define of Marik et al. Marik et al teaches that the exterior surfaces 278 and 280 of the nucleus can be angled (par. 0066) as shown in figure 25.



It is the examiner's interpretation that the nucleus can be described as being sloping because it slope relative to at least surface 278.

### ***Election/Restrictions***

Regarding the "stop member", claim 56, applicant indicates this limitation is taught in the non-elected species shown in figures 6-7, accordingly, this claim has been withdrawn directed to a non-elected species.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: orientation feature (claim 41).

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 32-67 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over all claims of copending Application No. 11/559,215. Although the conflicting claims are not identical, they are

not patentably distinct from each other. Applicant is has elected to prosecute the same species in both case. The same species contains the same limitations.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

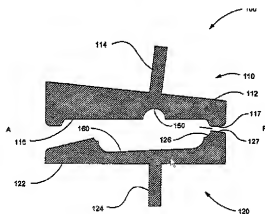
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

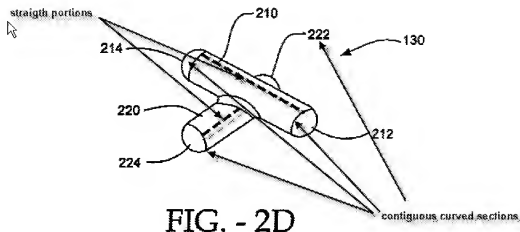
Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 32-39, 41, 43-46, 48-55 are rejected under 35 U.S.C. 102(a, e) as being anticipated Zucherman et al (7,320,707).

Zucherman et al teaches an intervertebral disc prosthesis comprising a first end plate 110 and a second end plate 120. (Note that the interpretation of the first and second plates can be reversed.) Note bone engagement features 114, 124.



The prosthesis further comprising a nucleus 130 which articulates between said first and second plates as shown in Figure 2D.



Said nucleus having an articular surface comprising a flat section between the contiguous first and second curves sections (either of the upper or lower).

Regarding claims 32-39, all specific language such as first and second bone engagement surfaces, first and second articulating surfaces, etc. is believed self-evident to one having ordinary skill in the art.

Regarding claim 32, either of the beams 210, 220 are interpreted as "partial cylinders" at least where they connect together. Said partial cylinders, when placed between the plates, slope relative to exterior surface thereof and are interpreted as "sloping partial cylinders".

Regarding claims 33 and 39, the beams 210, 220 are thicker where they join. Therefore, one can select an anterior portion which is thicker than a selected posterior portion. As shown in at least figure 1B, the lordotic angle is greater than zero.

Regarding claims 41, 43-50, and 66, all specific language such as the first and second essentially flat bone engagement surfaces, etc, is believed self-evident to one having ordinary skill in the art.

Regarding claim 41, either of the beams 210, 220 are interpreted as "partial cylinders" at least where they connect together. Said partial cylinders, when placed between the plates, slope relative to exterior surface thereof and are interpreted as "sloping partial cylinders". Said cylinders inherently have an engagement feature. Said partial cylinder has a "straight section". Either of the plates 110, 120 have a "second articular surface". At least figure 1B shows the first and second bone engaging surfaces in a "preferred orientation".

Claim 45, see first and second curved sections 212, 214 or 222, 224. The radius of these sections can be a different radius chosen on the partial cylinder away from the section radii.

Claim 43, see first and second curved sections 212, 214 or 222, 224.

Regarding claims 51-56 and 67, all specific language to said claims is believed self-evident to one having ordinary skill in the art.

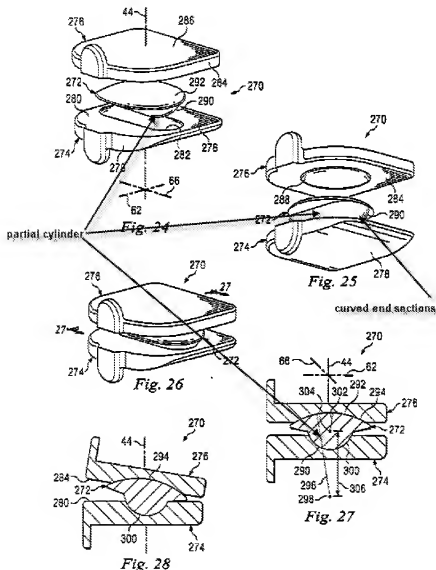
Regarding claim 51, see at least figure 1B showing a "preferred orientation". The nucleus is sloping.

Regarding claim 54, the beams 210, 220 are thicker where they join. Therefore, one can select an anterior portion which is thicker than a selected posterior portion. As shown in at least figure 1B, the lordotic angle is greater than zero.



Claims 32-39, 41, 43-55, 58-61, 63-67 are rejected under 35 U.S.C. 102(a, e) as anticipated by Marik et al (2005/0216086).

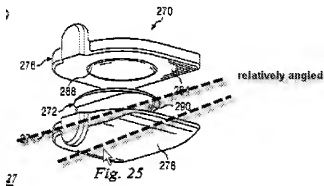
Marik et al teaches an intervertebral disc prosthesis comprising



a first end plate 274 and a second end plate 276 which can comprise bone engagement features such as a flange (stop). The prosthesis further comprising a nucleus 272 which articulates between said first and second plates which urges the

plates into a relative anterior/posterior orientation that provides a preferred lordotic angle including 0 (see paragraph 006 teaches surfaces 278 and 280 may be angled).

Regarding the articulating structure/nucleus has a "sloping partial cylinder" or "straight section sloping", it is the examiner's position that this fails to define over Marik et al. Marik et al teaches that the exterior surfaces 278 and 280 of the nucleus can be angled (par. 0066) as shown in figure 25.



It is the examiner's interpretation that the nucleus can be described as being sloping because it slopes relative to at least surface 278.

Regarding claims 33, 39, 54, 60 a cross section at the posterior can be taken closer to the posterior end when compared to a cross section at the anterior end taken further from anterior end; the chosen anterior portion would have a greater thickness than the chosen posterior portion. The device is interpreted as having a preferred lordotic angle greater than zero.

Regarding at least claims 43, Marik et al teaches a partial cylinder (as shown) which comprises a flattened portion in one cross section flanked by first and second curved ends which inherently have a different radii.

Claim 52, see surface 284 which comprises a concave recess and a flat portion. Also see paragraph 0066 which states, "the interior surface may include a concave recess 288" which is interpreted as being optional.

Claim 58, fourth surface 288 is interpreted as being substantially flat.

Claim 59, see reasoning for claim 52.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce E. Snow whose telephone number is (571) 272-4759. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bruce E Snow/  
Primary Examiner, Art Unit 3738